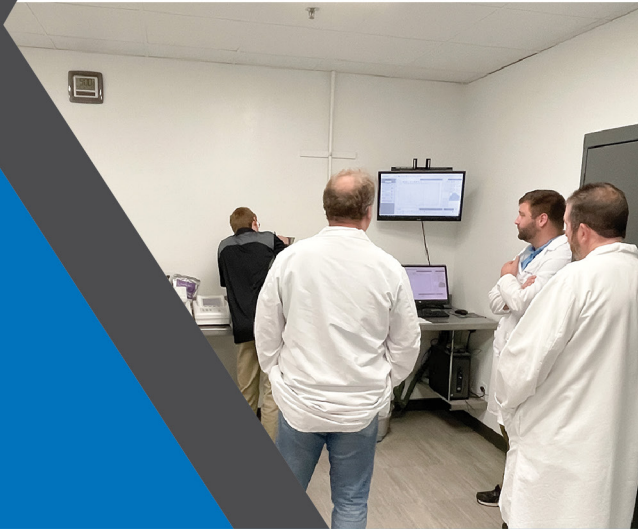


SEPT 9-11, 2025

FREUND Inc.

675 44TH ST
MARION, IA 52302

+1 319-377-8263



2025

IN-PERSON TECHNICAL SEMINAR...

Focusing on Granulation & Coating Technologies

A comparison overview of the fundamental concepts and properties of fluid bed granulation and coating, high shear wet granulation, roll compaction dry granulation, tablet pan coating and spray drying will be presented and demonstrated.

 **FREUND**



COMPANY OVERVIEW

FREUND Inc.

Since 1964, The FREUND group has been a global leader of processing solutions for powders, particles, beads, pellets, tablets, and other solid materials for industries including pharmaceutical, nutraceutical, food, industrial, energy, and many more.

Applications include wet and dry granulation, drying, agglomerating, coatings, layering, instantizing, and densification.

A customized product lineup includes coating pan systems, fluid bed systems for granulation and drying, high shear granulators, roll compactors, and spray dryers. We also offer automated process control systems to support these technologies.

FREUND Inc's unique in-house research laboratory accommodates multiple lab-to-pilot and production scale equipment offering customers specialized solutions in:

- ✓ Process Evaluation
- ✓ Process Development
- ✓ Process Optimization
- ✓ Process Scale-Up
- ✓ Process Troubleshooting
- ✓ Product Development
- ✓ Product Evaluation
- ✓ Product Feasibility Testing
- ✓ Formulation Assistance
- ✓ Technology Transfer
- ✓ Training



AGENDA

DAY ONE | Tuesday, Sept 9, 2025

It's a Matter of Understanding!		
8:00am to 8:10 am	Welcome	Greg Smith/Matt Winkler
8:10 am to 8:45 am	Technology Overview	Mitch Crawford
8:45 am to 9:30 am	High Shear Technology: Wet Granulation & Milling <ul style="list-style-type: none"> • Applications • Process Principles • Equipment Design • Scale-Up and Optimization 	Maren Gabor
9:30 am to 10:15 am	Fluid Bed Technology: Top Spray Granulation <ul style="list-style-type: none"> • Applications • Process Principles • Equipment Design • Scale-Up and Optimization 	Tim Smith
10:15 am to 10:30 am	Break	
10:30 am to 11:15 am	Fluid Bed Technology: Wurster Spray Coating <ul style="list-style-type: none"> • Applications • Process Principles • Equipment Design • Scale-Up and Optimization 	Jordan Teska
11:15 am to 12:00 pm	Perforated Pan Coating Technology <ul style="list-style-type: none"> • Applications • Process Principles • Equipment Design • Scale-Up and Optimization 	Mitch Crawford
12:00 pm to 1:00 pm	Catered Lunch/Tour	



AGENDA

DAY ONE | Tuesday, Sept 9, 2025

It's a Matter of Understanding!	
LAB SESSIONS 1:00 pm - 4:00 pm	
High Shear Wet Granulation <ul style="list-style-type: none"> • Proper Equipment Set-Up • Wet Milling • Fluid Bed Drying (NIR Moisture Analysis) • Product Analysis (LOD Analysis) 	Maren Gabor
Fluid Bed: Top Spray Granulation <ul style="list-style-type: none"> • Proper Equipment Set-Up • Proper Product Movement • Process Optimization • Product Analysis (QICPIC) 	Tim Smith
4:00 pm	Wrap Up/Leave for Hotel
TBD	Evening Event



AGENDA

DAY TWO | Wednesday, Sept 10, 2025

It's a Matter of Understanding!		
LAB SESSIONS 8:00 am - 11:15 am		
	Fluid Bed: Wurster (Bottom) Spray Coating <ul style="list-style-type: none"> • Proper Equipment Set-Up • Proper Product Movement • Process Optimization • Product Analysis (QICPIC) 	Jordan Teska
	Tablet Pan Coating <ul style="list-style-type: none"> • Proper Equipment Set-Up • Proper Product Movement • Process Optimization 	Mitch Crawford
11:30 am to 12:30 pm	Catered Lunch	
12:30 pm to 1:15 pm	Granulation Formulation Considerations: <ul style="list-style-type: none"> - Selection of Excipients - Use of Binders, Fillers, Glidants, Lubricants & Disintegrants Basics of Film Coating Formulation: <ul style="list-style-type: none"> - Basic Formulation Ingredients – Polymers, Plasticizers, Colorants and Solvents 	Shawn Engels, Colorcon
1:15 pm to 2:00 pm	Roll Compaction Technology: Dry Granulation <ul style="list-style-type: none"> • Applications • Process Principles • Equipment Design • Scale-Up and Optimization 	Jack Kenny
2:00 pm to 2:15 pm	Break	



AGENDA

DAY TWO | Wednesday, Sept 10, 2025

It's a Matter of Understanding!		
2:15 pm to 3:00 pm	Fluid Bed Technology: GXR Rotor Processor Coating of Multi-Particulates <ul style="list-style-type: none"> • Applications • Process Principles • Equipment Design • Scale-Up and Optimization 	Jordan Teska
3:00 pm to 3:45 pm	Spray Drying Technology <ul style="list-style-type: none"> • Applications • Process Principles • Equipment Design 	Maren Gabor
3:45 pm to 4:00 pm	Wrap Up/Leave for Hotel	

DAY THREE | Thursday, Sept 11, 2025

It's a Matter of Understanding!		
8:00 am to 9:00 am	Equipment and Process Trouble Shooting <ul style="list-style-type: none"> • Granulation Processes and Equipment • Coating Processes and Equipment 	Tim Smith
LAB SESSIONS 9:00 am - 2:30 pm		
	Roll Compaction: Dry Granulation <ul style="list-style-type: none"> • Dry Milling • Process Optimization • Product Analysis (QICPIC) 	Jack Kenny
	Spray Drying <ul style="list-style-type: none"> • Proper Atomization Techniques • Proper Spray System Set-Up • Process Optimization • Product Analysis (QICPIC) 	Maren Gabor
	Fluid Bed: Rotor Powder Layering <ul style="list-style-type: none"> • Proper Product Movement • Proper Spray System Set-Up • Process Optimization • Product Analysis (QICPIC) 	Jorden Teska
12:00 pm to 1:00 pm	Catered Lunch	
2:30 pm	Seminar Complete	

STAY CONNECTED

We are always here for you to answer questions or talk solutions for current or upcoming projects!

FREUND Inc.

A FREUNDGroup Company

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FREUND Inc. Granulation & Coating Technology Seminar

Sept 9-11, 2025

REGISTRATION FORM *(editable PDF)*

Name: _____

Job Title: _____

Company: _____

Address: _____

City: _____ State: _____ Zip: _____

Bus.Tel: _____ Cell Phone: _____

Email: _____

SEMINAR FEE: \$1,950.00

Dietary Restrictions: Y N

If Yes, Please Explain: _____

Purchase Order # _____

Credit Card

VISA Master Card American Express Security Code: _____

Card # _____ Exp. Date: _____ (mm/yy)

Cardholder's Name: (Please Print) _____

Signature: _____ Zip Code: _____

Return Registration Form:

FREUND Inc.

Attn: Granulation & Coating Technology Seminar

email: matt.winkler@freundglobal.com

